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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,111	05/24/2001	Raji Lakshmi Akella	AUS9-2001-0085-US1	1465
40412	7590	01/13/2005	EXAMINER	
IBM CORPORATION- AUSTIN (JVL)			TANG, KENNETH	
C/O VAN LEEUWEN & VAN LEEUWEN				
PO BOX 81641			ART UNIT	
AUSTIN, TX 78758-1641			PAPER NUMBER	
2127				
DATE MAILED: 01/13/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/864,111	AKELLA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kenneth Tang	2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 22 December 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-21 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 24 May 2001 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

1. This action is in response to the Amendment on 9/30/04. Applicant's arguments have been fully considered but they are moot in view of the new grounds of rejections.
2. Claims 1-21 are presented for examination.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:
  - a. In claims 1 and 15, it is not made explicitly clear in the claim language whether the changes are related to the data record or the field that is included in the data record.
  - b. In claims 8, the term "a nonvolatile storage accessible by the processors" in line 4 is indefinite because it is not made explicitly clear in the claim language whether this storage is the same as "a memory accessible by the processors" in line 3 or if it is another (newly introduced) memory accessible by the processors. The "memory accessible by the processors" is not related to anything else in the claim and there is not a structural relationship established with anything else in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**4. Claims 1-3, 7-10, 14-17, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Souder et al. (hereinafter Souder) (US 6,532,479 B2).**

5. As to claim 1, Souder teaches a method of creating snapshots of a data record, said method comprising:

determining one or more changes to the data record (identifying the changes) (*col. 2, lines 9-11*);

comparing the changes to one or more rules (comparing the changes to determine the data that have been affected by the master table changes, and if it affects the master table changes, then refresh a snapshot), wherein at least one of the rules corresponds to a field that is included in the data record (fields are used in the indication process) (*Fig. 9, items 900, 910, 920, 930, 940, etc., col. 19, lines 60-66*); and

copying (snapshot) one or more fields from the data record to a snapshot record in response to the comparison (rules determine whether snapshot should be inserted, deleted, or upserted) (*col. 19, lines 60-65*).

6. As to claim 2, Souder teaches writing transaction data corresponding to the copying to a transaction log file, wherein the transaction log file, wherein the transaction data includes an address corresponding to the snapshot record (addresses of the tables in the log file) (*col. 2, lines 5-13*).

7. As to claim 3, Souder teaches the method further comprising: retrieving (retrieving for examination) one or more transaction records stored in the transaction log file and selecting a related snapshot record corresponding each of the retrieved transaction log records (*col. 2, lines 5-13*).

8. As to claim 7, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Souder teaches having data areas or memory for the rules and snapshot fields (*Fig. 1, 104, 106, 107*).

9. As to claim 8, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Souder teaches an information handling system comprising one or more processors, a memory accessible by the processors, a nonvolatile storage accessible by the processors, and one or more data records stored on the nonvolatile storage (*Fig. 1, 104, 106, 108, 110*).

10. As to claim 9, it is rejected for the same reasons as stated in the rejection of claim 2.

11. As to claim 10, it is rejected for the same reasons as stated in the rejection of claim 3.

12. As to claim 14, it is rejected for the same reasons as stated in the rejection of claim 7.

13. As to claim 15, it is rejected for the same reasons as stated in the rejection of claim 1.

14. As to claim 16, it is rejected for the same reasons as stated in the rejection of claim 2.

15. As to claim 17, it is rejected for the same reasons as stated in the rejection of claim 3.

16. As to claim 21, it is rejected for the same reasons as stated in the rejection of claim 7.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**17. Claims 4, 6, 11, 13, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Souder et al. (hereinafter Souder) (US 6,532,479 B2) in view of Bamford et al. (hereinafter Bamford) (US 5,870,758).**

18. As to claim 4, Souder fails to explicitly teach using pointers to the data record. However, Bamford teaches using a snapshot pointer in the data record that includes an first address corresponding to the snapshot record and including a data record pointer in the snapshot record that includes a second address corresponding to the data record (*col. 9, lines 29-41*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the feature of using pointers to the data record because this would allow for data accessing (*col. 9, lines 29-41*).

19. As to claim 6, Souder fails to explicitly teach snapshot record as a rollback record. However, Bamford teaches retrieving one or more snapshot records corresponding to the data record, identifying one of the retrieved snapshot records as rollback record, and creating a new data record by overlaying the data record with the rollback record (*col. 3, lines 1-17, col. 12, lines 1-29*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the feature of rollback to Souder's snapshot system because this would prevent totally unpredictable and chaotic results (*col. 3, lines 14-17*).

20. As to claim 11, it is rejected for the same reasons as stated in the rejection of claim 4.

21. As to claim 13, it is rejected for the same reasons as stated in the rejection of claim 6.

22. As to claim 18, it is rejected for the same reasons as stated in the rejection of claim 4.

23. As to claim 20, it is rejected for the same reasons as stated in the rejection of claim 6.

**24. Claims 5, 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Souder et al. (hereinafter Souder) (US 6,532,479 B2) in view of Sarandrea et al. (hereinafter Sarandrea) (US 4,748,573).**

25. As to claim 5, Souder fails to explicitly teach retrieving one or more snapshot records corresponding to the data record, analyzing the retrieved snapshot records, and displaying a resulting analysis. However, Sarandrea teaches retrieving snapshot records of data, analyzing them, and then displaying the analysis on a monitor or printer (*col. 16, lines 66-68 through col. 17, lines 1-7, and col. 18, lines 10-26*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of retrieving one or more snapshot records corresponding to the data record, analyzing the retrieved snapshot records, and displaying a resulting analysis because this allows for the user to diagnose and learn information about the data records. In response to the displayed analysis, action can be taken as a response to the analyzed data.

26. As to claim 12, it is rejected for the same reasons as stated in the rejection of claim 5.

27. As to claim 19, it is rejected for the same reasons as stated in the rejection of claim 5.

***Response to Arguments***

28. *Applicant traverses the 112, 2<sup>nd</sup> paragraph rejection of claim 8 regarding “a nonvolatile storage accessible by the processors” (in line 4) being indefinite because it is not made explicitly clear in the claim language whether this storage is the same as “a memory accessible by the processors” (in line 3) or if it is another (newly introduced) memory accessible by the processors. Applicant argues that “nonvolatile storage” and “memory” is known to be different to those skilled in the art.*

In response, the Examiner respectfully disagrees. It is also known to one of ordinary skill in the art that a type of memory can be nonvolatile storage, and therefore, the claim does not explicitly distinguish these two terms as separate and different. In addition, after the “memory accessible by the processors” is introduced in the claim, there is no relationship made with anything else in the claim. If the memory is separate and distinct, then that memory does nothing and doesn’t perform any functions. Therefore, the 112, 2<sup>nd</sup> paragraph rejection is maintained until an amendment of the claim language overcomes the rejection.

29. With respects to the arguments regarding rejections based on art, Applicant’s arguments have been fully considered but are moot in view of the new grounds of rejections.

***Conclusion***

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt  
12/28/04

  
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